

# Work Order ID 102952

\*102952\*

Page 1

June-12-13 9:17:20 AM

Item ID: D2137 Accept

\*N900040100\* Setup Start \*NS1\*

Revision ID:

Stop \*NS2\*

Item Name: Decal - No Step

Start Date: 6/11/13 Start Qty: 12.00 \*12\*

Cust Item ID:

Required Date: 6/11/13 Req'd Qty: 12.00 \*12\*

Customer:

Reference:

Approvals: Process Plan: MLS Date: 13-06-13 Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

Run Start \*NR1\*

QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Stop \*NR2\*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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Draw Nbr	Revision Nbr
D2137	JAN 29 1992

100 0.00

\*100\*

Purchasing

Memo

Purchasing

Issue P/O 20161  
Make per Dwg 2137

0.00

CL 13/06/13 (12)

110

Receive & Inspect for Damage & Mat'l Certs

0.00

\*110\*

Packaging

Memo

Packaging

0.00

13/6/24 (12)

120

QC6- Inspect dimensions to drawing

0.00

\*120\*

QC

Memo

Quality Control

0.00

13 6 24

12

DQA: \_\_\_\_\_ Date: \_\_\_\_\_

**WORK ORDER NON-CONFORMANCE / UPDATE**

QA Closed: \_\_\_\_\_ Date: \_\_\_\_\_

Work Order update only ☐

Work Order: _____  Part No. _____  NCR No. _____	<b>DISPOSITION</b>  Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Suspected Unapproved <input type="checkbox"/>	<b>AGAINST DEPARTMENT/PROCESS</b>  <table style="width: 100%;"> <tr> <td>Skid-tube <input type="checkbox"/></td> <td>Crosstube <input type="checkbox"/></td> <td>Water Jet <input type="checkbox"/></td> <td>Engineering <input type="checkbox"/></td> </tr> <tr> <td>Machining <input type="checkbox"/></td> <td>Small Fab <input type="checkbox"/></td> <td>Prod. Eng. Coord. <input type="checkbox"/></td> <td>Quality <input type="checkbox"/></td> </tr> <tr> <td>Thermoforming <input type="checkbox"/></td> <td>Finishing <input type="checkbox"/></td> <td>Rec/Store/Packaging <input type="checkbox"/></td> <td>Other <input type="checkbox"/></td> </tr> <tr> <td>Large Fab <input type="checkbox"/></td> <td>Composite <input type="checkbox"/></td> <td>Supplier <input type="checkbox"/></td> <td></td> </tr> </table>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coord. <input type="checkbox"/>	Quality <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>	
Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>															
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Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>																

Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design <input type="checkbox"/>									
Doc/Data <input type="checkbox"/>									
Equip/Tooling <input type="checkbox"/>									
Handling/Pre <input type="checkbox"/>									
Material <input type="checkbox"/>									
Operator <input type="checkbox"/>									
Offset/Setup <input type="checkbox"/>									
Process <input type="checkbox"/>									
Supplier <input type="checkbox"/>									
Training <input type="checkbox"/>									
Transport <input type="checkbox"/>									
Unapproved <input type="checkbox"/>									

**FAULT CATEGORY**

<b>Landing Gear</b> <input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric <input type="checkbox"/> Cracks <input type="checkbox"/> Crimp/Kink/Ripple/Wave <input type="checkbox"/> Cuffs <input type="checkbox"/> Crushing <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Marks/Chatter <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube	<b>General</b> <input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damage/Defect <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drawing <input type="checkbox"/> Drill Holes <input type="checkbox"/> Finish <input type="checkbox"/> Fit/Function	<input type="checkbox"/> Folio/Program <input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete/Unqualified <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Misaligned/off center <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Off-set <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence	<input type="checkbox"/> Outside Dimensions <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge	<input type="checkbox"/> Pressure/Forced <input type="checkbox"/> Set-up <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled <input type="checkbox"/> Other
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# Work Order ID 102952

June-12-13 9:17:20 AM

**\*102952\***

Page 2

Item ID: D2137 Accept

Revision ID:

Item Name: Decal - No Step

Start Date: 6/11/13 Start Qty: 12.00 **\*12\***

Required Date: 6/11/13 Req'd Qty: 12.00 **\*12\***

Reference:

**\*N900040100\***

Setup Start **\*NS1\***

Stop **\*NS2\***

Cust Item ID:

Customer:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_

QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_

Run Start **\*NR1\***

Stop **\*NR2\***

Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Tool ID

Tool #

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

130

Identify as per dwg & Stock Location: 6A

0.00

**\*130\***

Packaging

Memo

0.00

Packaging

12

13/6/26

140

QC21- Final Inspection - Work Order Release

0.00

**\*140\***

QC

Memo

0.00

Quality Control

13/6/26

13-06-25

DQA: \_\_\_\_\_ Date: \_\_\_\_\_

**WORK ORDER NON-CONFORMANCE / UPDATE**

QA Closed: \_\_\_\_\_ Date: \_\_\_\_\_

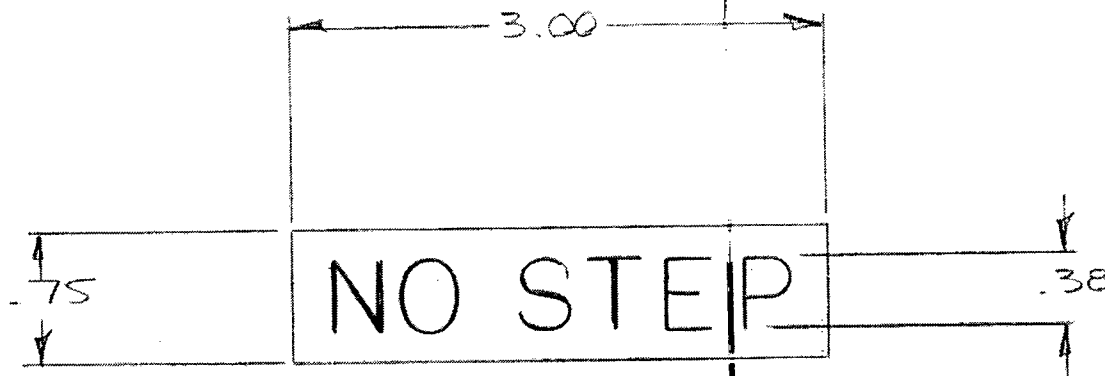
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Work Order: _____  Part No. _____  NCR No. _____	<b>DISPOSITION</b>  Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Suspected Unapproved <input type="checkbox"/>	<b>AGAINST DEPARTMENT/PROCESS</b>  <table style="width: 100%;"> <tr> <td>Skid-tube <input type="checkbox"/></td> <td>Crosstube <input type="checkbox"/></td> <td>Water Jet <input type="checkbox"/></td> <td>Engineering <input type="checkbox"/></td> </tr> <tr> <td>Machining <input type="checkbox"/></td> <td>Small Fab <input type="checkbox"/></td> <td>Prod. Eng. Coord. <input type="checkbox"/></td> <td>Quality <input type="checkbox"/></td> </tr> <tr> <td>Thermoforming <input type="checkbox"/></td> <td>Finishing <input type="checkbox"/></td> <td>Rec/Store/Packaging <input type="checkbox"/></td> <td>Other <input type="checkbox"/></td> </tr> <tr> <td>Large Fab <input type="checkbox"/></td> <td>Composite <input type="checkbox"/></td> <td>Supplier <input type="checkbox"/></td> <td></td> </tr> </table>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coord. <input type="checkbox"/>	Quality <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>	
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SHOWN BY  
 100-100  
 UNCONTROLLED COPY  
 SUBJECT TO CHANGE  
 WITHOUT NOTICE  
 NO 102952 MLC  
 1306-13

ALTERNATE MATERIAL:  
 3M 7 MIL MASKING FILM #8522CP  
 SILVER OR WHITE ON BLACK

00.09.05  
 00.09.05

MATERIAL: 3M POLYESTER  
 NATURAL (SILVER OR  
 WHITE) ON BLACK.  
 .003 THICK



D2137

REVISION		THIS DRAWING IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COMPILED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT THE PERMISSION OF DART AERO.		RIVET CODE SHALL BE PER NAS 523		PART NO.		ITEM		DESCRIPTION		MATERIAL		SPEC/VENDOR	
DRAWN				BASIC CODE		CONTRACT NO.				DRAWN		DATE		DART AERO ACCESSORIES INC. VANCOUVER CANADA	
APPROVED				D-DIMPLE D-DOT-NO OF SHEETS C-COUNTERSINK		LENGTH DASH NO W-SPOTWELD		DESIGN		92					
DESCRIPTION OF CHANGE		REQUIREMENTS — UNLESS OTHERWISE SPECIFIED		BASIC CODES		STRESS		CHECKED		TITLE		CODE		REV.	
		GENERAL		LIMITS		8-M-52047040 98-M-52042640				DECAL - NO STEP		DAG NO.			
		1. DIMENSIONS ARE IN INCHES 2. SURFACE ROUGHNESS 19.1 3. REMOVE SHARP EDGES .015 MAX 4. THREADS PER INCH — 5 — 7743 5. HOLES PER AND 10587		1. TOLERANCES — .005 & .030 2. ANGLES — 90° & 45° 3. PARALLELISM — .0025 4. ECCENTRICITY — .005 MAX 5. SYMMETRY ABOUT ALL M/C CENTRAL LINES .005						DAG NO. D2137					
REPORT ALL DISCREPANCIES — DO NOT SCALE															

**210 Main Street W  
Hawkesbury, Ontario K6A 2H6**

Invoice No.: 20311  
Date: 06/21/2013  
Ship Date:  
Page: 1  
Re: Order No. WO10206

**Sold to:**

**Dart Aerospace Ltd**  
1270 Aberdeen  
Hawkesbury, Ontario K6A 1K7

**Ship to:**

Dart Aerospace Ltd  
Hawkesbury, Ontario

**Business No.:** 82500 7651 RT0001

Item No.	Unit	Quantity	Description	Tax	Unit Price	Amount
		12	STICKERS D2137P	H	2.0833	25.00
		1	SET UP CHARGE	H	50.0000	50.00
		10	STICKERS D3671-1P	H	2.5000	25.00
		1	SET UP	H	50.0000	50.00
		30	STICKERS D4166-1P	H	1.6667	50.00
		1	SET UP	H	50.0000	50.00
		10	STICKERS D3012-5P	H	2.5000	25.00
		1	SET UP	H	50.0000	50.00
		10	STICKERS D3012-3P	H	2.5000	25.00
		1	SET UP	H	50.0000	50.00
			PO#20161			
			H - HST 13%			
			HST			52.00
<hr/>						
<hr/>						
<hr/>						
Studio de Lettrage HST: #825007651RT0001						
Shipped By:					Tracking Number:	
Comment:					Total Amount	452.00
Sold By:						

\*\*\*\*Certificate of Conformity\*\*\*\*

**Customer:**

Studio Lettrage

**Purchase Order #:**

20161

**Packing Slip #:**

W010206

**Part #:**

0

**Serial #:**

**Description:**

Stickers

**Quantity:**

72

**Certification:**

We hereby certify that:

1. The above the listed items were manufactured, repaired and/or inspected in accordance with applicable drawings and/or specifications;
2. All work was accomplished in accordance with the Dart Aerospace Purchase Order;
3. Results of all inspections, chemical or physical tests, as well as other evidence, which shows the acceptability of raw materials, parts and/or assembly components are on file and available for inspection at any time. —

**Authority:**

Avery

**APPROVAL:** KAREN STE. VARE

**DATE:**

**Signature:**

Karen Ste. Vare

**Title:**

Project Coordinator June 21, 2013.

## PRODUCT DATA SHEET



### Avery® IPM™ 2031

issued: 01/04/2005

#### Introduction

Avery® IPM™ 2031 is a high quality pressure-sensitive vinyl film, designed for use on wide format inkjet printers. Avery® IPM™ 2031 has excellent printing properties, allowing crisp print quality with bright and vibrant colours. Avery® IPM™ 2031 offers rapid ink drying and a water-resistant material. It combines good adhesion during its life and easy removal afterwards.

#### Description

Facefilm: 80-micron premium white calendered, topcoated vinyl.

Adhesive: removable, acrylic based

Backing paper: one side coated kraft paper, 140 g/m<sup>2</sup>

#### Features

- Excellent printability
- Vibrant and bright colours
- Crisp print quality
- Spray water resistant with specific pigmented inks
- Good adhesion, excellent removability
- Warranty on outdoor durability

#### Recommendations for use

A wide variety of full-colour graphics for indoor - and **short/medium term outdoor** applications such as posters, murals, displays, exhibition stands, vehicle graphics etc. Avery® IPM™ 2031 is suitable for application to a wide variety of substrates and will remove cleanly for up to 1 year after application.

IPM media should be handled with care as any surface contamination may affect the print quality. Media should be processed in an environment of 15-25°C and 30-70% relative humidity. After drying, the finished prints should be wrapped in polyethylene film and despatched flat or rolled with the printed side facing outwards. To protect prints against water, UV/light and abrasion, overlamination with a clear film is recommended. For specific details of Avery® DOL combinations, refer to "Technical Bulletin 5.3. Recommended combinations of Avery® Overlaminates and Avery® Digital Print Media"

**Always test your combination of Avery® IPM™ medium, inkjet printer and inks prior to commercial use.**

#### Compatibility

Avery® IPM™ 2031 is compatible with a broad selection of inkjet printers, when printing with pigmented, water based inks. For specific details refer to "Technical Bulletin 5.6 Avery Dennison Inkjet Print Media - Printer compatibility".

#### Durability:

Avery® IPM™ 2031 is warranted for outdoor use in conjunction with pigmented outdoor inks from HP, Encad and Colorspan. The warranted period varies from type of application and type of overlaminate from 18 months up to 5 years. For full details, see our Avery® IPM™ Outdoor warranty.



www.averygraphics.com

Graphics Division  
Rijndijk 86, P.O. Box 118  
2394 ZG Hazerswoude - The Netherlands  
Tel: +31 71 3421500 - Fax: +31 71 3421538



## PRODUCT CHARACTERISTICS

Avery® IPM™ 2031

### Physical properties

Features	Test method <sup>1</sup>	Results
Caliper, facefilm	ISO 534	80 µm
Gloss	ISO 2813, 20°	1%
Dimensional stability	DIN 30646	0.3 mm. max
Adhesion, initial	FINAT FTM-1, stainless steel	180 N/m
Adhesion, ultimate	FINAT FTM-1, stainless steel	260 N/m
Flammability		Self extinguishing
Accelerating ageing	DIN 53587, 500h exposure	No negative impact on film
Shelf life	Stored at 22° C/50-55 % RH	Performance
Removability		2 years
Not when applied to: Nitro-cellulose paints, ABS, Polystyrene, certain types of PVC		up to 1 year
Durability <sup>2</sup>	Overlaminated with DOL 4300	5 years
	Overlaminated with DOL 1000, DOL 1100 with overlaps	3 years
	Overlaminated without overlaps for static applications only	2 years
	Without overlaminate and used for static, Non-abrasive application ONLY	18 months

Only when printed with ENCAD GO, HP and Colorspan pigmented inks and when properly applied in accordance with our application instructions. Only applicable for vertical exposure.

### Temperature range

Features	Results
Application temperature	Minimum: +10°C
Service temperature	-20°C to +80°C

#### Important

Information on physical and chemical characteristics is based upon tests we believe to be reliable. The values listed herein are typical values and are not for use in specifications. They are intended only as a source of information and are given without guarantee and do not constitute a warranty. Purchasers should independently determine, prior to use, the suitability of this material to their specific use.

All technical data are subject to change. In case of any ambiguities or differences between the English and foreign versions of these Conditions, the English version shall be controlling.

#### Warranty

Avery® branded materials are manufactured under careful quality control and are warranted to be free from defect in material and workmanship. Any material shown to our satisfaction to be defective at the time of sale will be replaced without charge. Our aggregate liability to the purchaser shall in no circumstances exceed the cost of the defective materials supplied. No salesman, representative or agent is authorised to give any guarantee, warranty, or make any representation contrary to the foregoing.

All Avery® branded materials are sold subject to the above conditions, being part of our standard conditions of sale, a copy of which is available on request.

#### 1) Test methods

More information about our test methods can be found on our website.

#### 2) Durability

The durability is based on middle European exposure conditions. Actual performance life will depend on substrate preparation, exposure conditions and maintenance of the marking. For instance, in the case of signs facing south; in areas of long high temperature exposure such as southern European countries; in industrially polluted areas or high altitudes, exterior performance will be decreased.



www.averygraphics.com

#### Graphics Division

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